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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/960,528 | 09/24/2001 | Hiroshi Sumiyama | 325772026900 | 5299 |

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| EXAMINER | |
|---|---|
| CARBONELLO, MICHAEL J | |
| **ART UNIT** | **PAPER NUMBER** |
| 2622 | |

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/960,528 | SUMIYAMA ET AL. | |
| | Examiner | Art Unit | |
| | Michael Carbonello | 2622 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *09/21/2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☒ Claim(s) *1-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 September 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Drawings*

1. The drawings were received on 9/24/2001. These drawings are objected to because of the confusing nature by which the features are labeled/numbered. While it is assumed that the number pattern used is designed to have the first half of the number represent the figure number and the second half of the number to represent a particular feature of said figure (For example, the number 51 represents figure 5, feature 1); The examiner suggests that the all the features, regardless of which figure they are depicted in, be labeled sequentially with numerals starting at one (1).

### *Specification*

2. The disclosure is objected to because of the following informalities: the specification needs to be edited to reflect the suggested labeling/numbering changes discussed under Drawings. Also many sections of the application including the abstract, specifications and claims do not provide line reference numbers. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 7, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danknick. Regarding claim 1, Danknick discloses in column 3, lines

14-17; "An image processing apparatus that is connected plurality of printers through a network and that transmits a print job including image data to any printers." Danknick further teaches in column 3, lines 46-53; "an obtaining unit that obtains multiple image size information regarding a print job." Danknick further discloses from column 5, line 65 to column 6, line 2; "a comparator that compares each image size and the paper sizes available in each printer; and a selector that selects a printer to which the print job sent based on a degree of matching if the comparison results obtained by the comparator." Danknick also discloses on column 4, lines 46-50; "a transmitter that transmits the print job to the selected printer selected by the selector."

Danknick does not disclose; "a memory that stores paper sizes available in each printer connected to the network such that paper size information is associated to each printer." Danknick discloses in column 4, lines 31-35; "The Host 110 preferably provides storage, for example in long term memory 250, for holding incoming facsimile transmissions for extended periods and in substantial amounts when a hold is placed on printing facsimile jobs." Danknick further discloses from column 5 line 65 to column 6 line 2; "The Host 110 next determines whether any of the MFPs 112 should be disqualified from receiving a print job for other reasons (step 320). One reason for disqualification is that the MFP 112 is improperly formatted with respect to the finishing or paper requirements of the print job." With respect to claim 1, the host is defined in column 3 lines 14-17; and the MFP's are defined on column 3 lines 21-24. Also with respect to claim 1, paper size would be a type of paper requirement. It would have been at obvious at the time of invention for one of ordinary skill in the art to combine

the two features of Danknick to utilize the memory of the "host" to "store paper sizes available in each printer connected to the network such that paper size information is associated to each printer."

4. Regarding claims 8 and 10, Danknick discloses in column 3, lines 14-17; "An image processing apparatus that is connected plurality of printers through a network and that transmits a print job including image data to any printers." Danknick further teaches in column 3, lines 46-53; "an obtaining unit that obtains multiple image size information regarding a print job." Danknick further discloses from column 5 line 65 to column 6 line 2; "a comparator that compares each image size and the paper sizes available in each printer; and a selector that selects a printer to which the print job sent based on a degree of matching if the comparison results obtained by the comparator." Danknick also discloses on column 4, lines 46-50; "a transmitter that transmits the print job to the selected printer selected by the selector."

5. Regarding claim 2, Danknick discloses the method discussed above in claims 1,8 and 10. Danknick further discloses in column 6, lines 5 –12; "An image processing apparatus, wherein the selector selects a printer that has all of the paper sizes that match the image sizes."

6. With respect to claim 7, Danknick discloses the methods discussed above and Danknick further discloses in column 3 lines 62-65; "The MFP 112a preferably comprises a high output digital copier having a communications interface 220." Danknick further discloses column 4, lines 5-13; "The MFP 112a includes a short term memory 265, which preferably comprises random access memory (RAM) and a

processor 260 in which programs are stored and run, respectively, for controlling the functions of the MFP 112a. The MFP 112a preferably also includes a long term memory 285 such as a read only memory (ROM) or electronically programmable read only memory (EPROM). The MFP 112a may also include a disk drive (not shown) for both long term and short term storage" It would have been obvious at the time of invention for one of ordinary skill in the art to use the described memory locations and communications interface to communicate between printers and store information regarding the size of the paper available in each printer.

7. Claims 3, 4, 5, 6, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dankick in view of Keane et al. Regarding claims 3, 9 and 11, Danknick discloses the method described above in claims 1, 2, 7, 8 and 10. Danknick does not disclose "An image processing apparatus as claimed in claim 1, wherein the selector selects a printer that has the most paper sizes that match the image sizes." Keane et al teaches in column 17, lines 25-33; "The second component 208 collects these PostScript files, according to aggregation parameters (e.g., job tracking information and size of the printing paper to be used), and aggregates (or "gangs") them to produce a PostScript file 210 that contains "N-up" designs, the value of N being dependent on the design size, the paper size, and the exact layout required due to requirements such as edge bleed. The third component 212 does an automatic "pre-flight check" on each aggregated PostScript file, thus avoiding the need for further manual intervention." It would have been obvious at the time of invention to one of ordinary skill in the art to combine the host controller described by Danknick with the

aggregation method described by Keane et al to produce an image processing apparatus wherein the selector selects a printer that has the most paper sizes that match the image sizes. The motivation is that the host controller would be able to assign print jobs to MFPs that only meet most of the paper format requirements. This will allow the host to reduce the number of disqualified MFPs and allow more documents to be put into printer queues and consequently more documents to be printed.

8. With respect to claim 4, Danknick and Keane et al disclose the methods discussed above. Danknick does not disclose, "An image processing apparatus, wherein none of the printers has all of the paper sizes that match the image sizes, the selector selects a printer that has a paper supply device through which paper of any size is inserted in the printer." Keane et al discloses in column 2, lines 18-20; "The integral print medium may include cut sheets of paper, or large rolls of paper designed for use on offset printing web presses." It would have been obvious at the time of invention for one of ordinary skill in the art to combine host controller described above by Danknick and the varying print mediums described by Keane et al to provide "An image processing apparatus, wherein none of the printers has all of the paper sizes that match the image sizes, the selector selects a printer that has a paper supply device through which paper of any size is inserted in the printer." The benefit of combing these two ideas is if none of the image processing devices or MFP on the network has any of the required paper sizes matching the image sizes, the host controller can select a printer that will allow the user to insert paper of any size into the device.

9. Regarding claims 5 and 6, Danknick and Keane et al disclose the methods disclosed above. Danknick and Keane et al do not disclose either "An image processing apparatus as claimed in claim 4,further comprising: notification means that notifies an user of that size of paper that inserted in the paper supply device when the paper supply device is selected or an image processing apparatus as claimed in claim 4, wherein said device has notification means that notifies the user all of the image sizes." Danknick further discloses in column 4, lines 46-50; "The Host 110 rasterizes print jobs received from the computer workstation 150 via the LAN 100 into print data (in a form native to the MFPs 112) and transmits the print data to the MFPs 112 via the communications interface 205." Danknick discloses in column 4, 18-21; "The MFP 112a has user interface software stored in the memory 285 which is responsible for displaying information on the display 225 and interpreting user inputs from the user input device 230." Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to use the host controller, which is generating the rasterized images and determining whether MFPs are eligible based on image size requirements and paper requirements and combine it with the user interface on an MFP as a means to notify the user of the size of paper selected in the image processing apparatus, as well as all the image sizes. The motivation is that it would allow the host, which is linked through the network to display information at the location of the host, any of the workstations, or any of the image processing apparatuses.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abe discloses "to provide a mechanism for user to see the state of the print and copy jobs at a time in a print system comprising an image forming device such as a digital copier, and a print control device, such as a print server"." Klassen discloses " method and system is provided r spitting a print job lacking page independence into selected job portions wherein the job portions can be independently processed in a plurality of processing nodes into a printer dependant format for printing by a printer." Salgado et al discloses, "A method and apparatus for prioritizing the use of multifunctional printing system's basic processing resources for multiple banded image processing. The printer system employs a controller with an improved job contention manager (JCM). " Kurozasa discloses, "An image processing system and method where a printer receives a print request from a printer driver which is not exclusively used for the printer. Before the printer starts printing in accordance with the print request, print mode items such as the size of a print sheet, the number of pages and a paper tray used, set by the printer driver, can be changed." Barry et al discloses, "A method and apparatus for routing page data of a print job to the printer in a multi-print engine on a print job parameters associated with the page data of the print job is disclosed." Schwarz discloses, "a client provides a job ticket token to the print server, which contains the profile of a print job to be printed. The print server parses the job ticket token to the client, that includes the network address and the name of the selected printer." Kawakami discloses, "A print priority determining apparatus includes a

recognizing nit for reading current setting parameter of the printer from memory, a comparison unit for detecting whether a print condition read by the recognizing unit is in accordance with the setting parameter read by the reading unit, and a priority setting unit for determining a priority of each of the print job files in accordance with a result of the detection by the comparison unit.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Carbonello whose telephone number is (571) 272-0625. The examiner can normally be reached on Mon – Fri between 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Carbonello
Examiner
Art Unit 2622

MJC

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